

## **Grade 5 Academic Standards**

### **Unit 5 Lesson**

#### **Science**

##### **Standard 1 The Nature and Science of Technology**

###### **Technology and Science**

- 5.1.2 Begin to evaluate the validity of claims based on the amount and quality of the evidence cited.
- 5.1.4 Give examples of technology, such as telescopes, microscopes, and cameras, that enable scientists and others to observe things that are too small or too far away to be seen without them and to study the motion of objects that are moving very rapidly or are hardly moving.
- 5.1.5 Explain that technology extends the ability of people to make positive and/or negative changes in the world.
- 5.1.6 Explain how the solution to one problem, such as the use of pesticides in agriculture or the use of dumps for waste disposal, may create other problems.

##### **Standard 4 The Living Environment**

###### **Interdependence of Life and Evolution**

- 5.4.4 Explain that in any particular environment, some kinds of plants and animals survive well, some do not survive as well, and some cannot survive at all.
- 5.4.5 Explain how changes in an organism's habitat are sometimes beneficial and sometimes harmful.

##### **Standard 5 The Mathematical World**

###### **Reasoning and Uncertainty**

- 5.5.9 Show how spreading data out on a number line helps to see what the extremes are, where they pile up, and where the gaps are.

## Standard 6 Common Themes

### Systems

- 5.6.1 Recognize and describe that systems contain objects as well as processes that interact with each other.

### Models and Scale

- 5.6.2 Demonstrate how geometric figures, number sequences, graphs, diagrams, sketches, number lines, maps, and stories can be used to represent objects, events, and processes in the real world, although such representation can never be exact in every detail.

## **Social Studies**

## Standard 2 Civics and Government

### Roles of Citizens

- 5.2.9 Demonstrate civic responsibility in group and individual actions, including civic dispositions, such as civility, cooperation, respect, and responsible participation.
- 5.2.11 Use a variety of information resources to identify and evaluate contemporary issues that involve civic responsibility, individual rights, and the common good.

## Standard 5 Individuals, Society, and Culture

- 5.5.6 Read accounts of how scientific and technological innovations have affected the way people lived in the early United States, and make predictions about how future scientific and technological developments may change cultural life.

**Unit 5 - Activities 1, 2, 4, 6, and 7 satisfy the following Indiana academic standards:**

**Science**

- 5.1.2 Explain that doing science involves many different kinds of work and engages men, women, and children of all ages.
- 5.1.5 Explain that technology extends the ability of people to make positive and/or negative changes in the world.
- 5.1.6 Explain how the solution to one problem, such as the use of pesticides in agriculture or the use of dumps for waste disposal, may create other problems.
- 5.4.4 Explain that in any particular environment, some kinds of plants and animals survive well, some do not survive as well, and some cannot survive at all.
- 5.4.5 Explain how changes in an organism's habitat are sometimes beneficial and sometimes harmful
- 5.6.1 Recognize and describe that systems contain objects as well as processes that interact with each other.
- 5.6.2 Demonstrate how geometric figures, number sequences, graphs, diagrams, sketches, number lines, maps, and stories can be used to represent objects, events, and processes in the real world, although such representation can never be exact in every detail.

**Mathematics**

- 5.7.7 Make precise calculations and check the validity of the results in the context of the problem.

**Social Studies**

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- 5.2.11 Use a variety of information resources to identify and evaluate contemporary issues that involve civic responsibility, individual rights, and the common good.
- 5.5.6 Read accounts of how scientific and technological innovations have affected the way people lived in the early United States, and make predictions about how future scientific and technological developments may change cultural life.